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**DRAFT**

**MERCURY IN PRODUCTS REGULATIONS**

**PHASE I:**

- **Removing mercury-added switches and other components from end-of-life vehicles**
- **Collecting and recycling end-of-life mercury-added products**
- **Collecting and recycling mercury-added lamps**

Prepared by: Bureau of Waste Prevention

March 13, 2007



**DRAFT REGULATIONS IMPLEMENTING THE  
MASSACHUSETTS MERCURY MANAGEMENT ACT  
(Chapter 190 of the Acts of 2006)**

**PHASE 1: MERCURY VEHICLE SWITCHES AND MANUFACTURERS'  
COLLECTION/RECYCLING PLANS**

**1. Introduction**

An Act Relative to Mercury Management (Chapter 190 of the Acts of 2006, also known as the “Massachusetts Mercury Management Act” which was signed into law on July 28, 2006) is designed to keep mercury out of our trash and wastewater, where it is released into the environment. The law requires manufacturers of products containing mercury to collect “end of life” products to recycle the mercury and phase out the sale of certain products containing mercury. The law also establishes specific requirements for mercury switches in vehicles, and for lamps that contain mercury.

The Mercury Management Act amends Chapter 21H of the Massachusetts General Laws. It requires the Massachusetts Department of Environmental Protection (MassDEP) to oversee the programs and initiatives established to meet the Act’s goals, and contains deadlines for implementing them. MassDEP is proposing regulations that will govern the three new programs with the earliest deadlines and/or timeframes:

- *Removing mercury-added switches and other components from end-of-life vehicles:* vehicle recyclers and scrap recycling facilities must have started removing mercury-added components from end-of-life vehicles in October 2006. Automobile manufacturers have funded and started a program for collecting the removed switches and transporting them to a mercury recycling facility. Any manufacturers who produced vehicles with mercury-added switches but who are not participating in the on-going collection/recycling program must set up their own program by August 1, 2007;
- *Collecting and recycling end-of-life mercury-added products:* manufacturers must file plans with MassDEP by May 1, 2007;
- *Collecting and recycling mercury-added lamps:* manufacturers must implement a public education program by January 1, 2007 and meet specific recycling targets by the end of December 2008.

MassDEP intends to propose a second set of regulations later in 2007 that will establish performance criteria and procedures for implementing product sales bans (or “phase outs”), a ban on disposal of mercury-added products in solid waste, requirements for labeling mercury-added products and other provisions of the Mercury Management Act.

**2. Background**

Mercury is a toxic metal. When products containing mercury are discarded at the end of their useful lives, the mercury is released into the air when products break and are disposed at the end of their useful lives. Solid waste disposal and some manufacturing facilities can also release

mercury into the air as they process waste (e.g., trash incinerators, landfills, and facilities that re-refine steel from end-of-life vehicles that is recycled without first removing mercury components). Airborne mercury is deposited on land and in lakes and ponds, where it can be eaten by fish and in turn by people and wildlife. Mercury that is discharged in wastewater ends up in sewage sludge, which is either burned in an incinerator or applied to land as a soil amendment; in both cases, rain washes it into lakes, ponds, and streams.

People are exposed to mercury primarily through consumption of fish. Mercury can impact the nervous system, even at low levels of exposure. Massachusetts public health officials have warned people to limit their consumption of certain types of fish caught in -state waterbodies that typically have high concentrations of mercury, with particular cautions for pregnant women, nursing mothers, women of child-bearing years, and young children. Children and fetuses are particularly vulnerable to mercury, because it can damage their developing brains.

Massachusetts has addressed three significant sources of mercury since the mid-1990's:

- The state's largest trash incinerators (which were the largest single source of mercury emissions to the Massachusetts environment) have responded to requirements for new pollution control equipment that were enacted in 1998, and as a group have reduced their mercury emissions from 6,000 pounds/year (in 1996) to 600 pounds per year (in 2003);
- Massachusetts dentists have installed wastewater treatment units at their facilities, in response to a voluntary initiative and regulations. These treatment units filter particles of mercury dental amalgam from their wastewater. The Massachusetts Water Resources Authority (the state's largest wastewater treatment district) reports that mercury levels in its sludge have dropped by more than 50%, largely as a result of this program;
- Massachusetts coal-fired power plants are now in the process of upgrading their pollution control equipment to reduce their emissions of mercury into our air by 85% by 2008 and 95% by 2012.

Despite these successes, mercury in products is still a significant source of pollution, and in turn, a significant concern for public health and the environment.

### **3. Removing and Recycling Mercury Components in Vehicles**

Many vehicles made before the start of model year 2003 contain switches and other components made with mercury. U.S. automakers stopped using mercury switches in the manufacture of new vehicles in 2003. Many foreign manufacturers stopped using mercury switches in the late 1990's, or never used them in the first place.

The regulations proposed for public comment in this package describe the responsibilities of vehicle recyclers, scrap recycling facilities (generally known as "auto shredders"), and the auto manufacturers to implement Section 6C of the Mercury Management Act.

*What Mercury Components must be Addressed*

Over 99% of the mercury in motor vehicles is found in switches<sup>1</sup>. Most mercury switches were used for convenience lighting (in hoods and trunks) and in anti-lock brake systems (ABS). Mercury can also be found in certain types of high-intensity discharge (HID) headlights, fluorescent lamps that light instrument panels and screens, and some sensors that are still being installed in new vehicles. Currently, U.S. EPA estimates that 67 million mercury switches are in vehicles still on the road.

Each light switch contains approximately 1 gram of mercury, and sensor switches in ABS units typically contain 1-2 grams of mercury. Other vehicle components typically contain less mercury. For example, the fluorescent lamps that light instrument panels contain less than 10 milligrams of mercury; HID headlamps contain 0.5 milligrams of mercury.

Nineteen states have enacted legislation that requires vehicle recyclers to remove mercury switches before the vehicle is crushed and sent to a scrap steel recycling facility. Auto manufacturers are also required to provide assistance by collecting the removed switches and transporting them to a licensed mercury recycling facility. Eleven of these states have also established a requirement that the auto manufacturers pay the vehicle recyclers between \$1- \$5 for each switch that is removed. Another three states have established voluntary switch removal programs, in which the state makes similar payments to vehicle recyclers for each removed switch, and supports collection and recycling of the switches.

The auto manufacturers have set up a separate entity, End of Life Vehicle Solutions, Inc. (“ELVS”), to collect and recycle mercury switches removed from vehicles. ELVS is implementing the auto manufacturers’ responsibilities under a National Vehicle Switch Recovery Program established in August 2006 by Environmental Council of the States (ECOS), EPA, the auto manufacturers, vehicle recyclers, scrap steel refiners, and environmental organizations.

Section 6C of the Mercury Management Act establishes a broader program, requiring Massachusetts vehicle recyclers to remove all mercury-added components, including switches, before a vehicle is crushed. At the same time, the statute requires auto manufacturers to assist the vehicle recyclers by collecting and transporting removed *switches* (but not all mercury *components* that need to be removed) to a facility licensed to recycle the mercury, and to recycle the “recovered” switches.

*Manufacturers’ Programs for Collection and Recovery of Mercury Vehicle Switches:*

The statute requires automobile manufacturers to implement one or more types of “plans” or programs to collect and recycle the mercury switches removed from end-of-life vehicles by recyclers and dismantlers:

- Plan with “Bounty” Payments to Recyclers: Section 6C(g) establishes requirements for manufacturers to organize, manage, and finance a plan for collecting removed switches,

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<sup>1</sup> The Mercury Management Act defines a “mercury switch” as a “mercury-added product that opens or closes an electrical circuit or gas valve”.

transporting them to a recycling facility, managing the switches in accordance with MassDEP's hazardous waste rules (by recycling the mercury in the switches), and providing information, training, and technical assistance to the vehicle recyclers, scrap recycling facilities, and anyone else who removes mercury switches from vehicles. In addition, the manufacturer must pay \$3 to vehicle recyclers and scrap recycling facilities for each switch removed (a "bounty"). The statute establishes a performance standard that requires the plan to capture 90% of switches available for recovery in a given year (not including switches that cannot be removed due to vehicle damage in the area where the switch is located).

This plan must be proposed to MassDEP for approval by August 1, 2007 and implemented by:

- any manufacturer not participating in an "Alternate Plan A" implemented under §6C(n), described below, and
  - manufacturers that are implementing an "Alternate Plan A" that does not achieve the specified capture rate;
- Alternate Plan A: Section 6C(n) allows manufacturers to organize, manage, and finance an "alternate" plan that includes all the elements of the plan described above, with the exception of the \$3/switch bounty. If this plan captures 50% of the switches expected to be available for recycling in end of life vehicles by December 31, 2007, and 90% of the switches by December 31, 2008, then the manufacturers can continue implementing this plan, without providing a bounty. ELVS submitted a plan under section 6C(n) in September 2006 and received MassDEP's approval to establish a collection and recycling program in Massachusetts in December 2006. Most manufacturers that installed mercury convenience light switches in their vehicles are relying on the ELVS program to satisfy the requirement of Section 6C(n);
- Alternate Plan B: Section 6C(o) allows a manufacturer that has been implementing a plan with a bounty to recyclers [under §6C(g)] for at least one year to propose an alternative plan to MassDEP for approval. The alternative plan must have been in effect in another state for at least one year, and must have achieved a 90% capture rate in that state. This type of plan does not need to include the bounty required by §6C(g).

Manufacturers that never used mercury switches in their vehicles are exempt from the above requirements.

#### *Measuring the Success of Manufacturers' Collection/Recovery Plans*

The Mercury Management Act requires that the success of the plans implemented by manufacturers be measured against the specified target capture rates described above. The establishment of these target capture rates implies that the total number of switches available to be collected from end of life vehicles is known. However, mercury switches were only installed in some vehicle makes and models (and some were only installed as part of option packages for purchasers), and the number of these vehicles that will be retired in any given year can only be estimated.

ELVS and the “Clean Car Campaign”<sup>2</sup> have developed different estimates of the total number of switches that will be available for collection each year. The estimates differ because the models used to develop them employed different assumptions, particularly in terms of:

- The size of the national fleet,
- The rate at which vehicles are retired from the fleet or scrapped,
- The proportion of vehicles that are lost or stolen from the Massachusetts fleet and are scrapped at Massachusetts recyclers (some are returned to their original owner and repaired, and others are shipped to other countries); and
- The average number of mercury switches in each retired vehicle (which varies with the age distribution of the group of vehicles that are retired in any given year).

A more complete description of the differences between the models can be found on MassDEP’s web site: [www.mass.gov/dep/autobiz.htm](http://www.mass.gov/dep/autobiz.htm).

The higher the “denominator” of the capture rate (i.e., the number of mercury switches likely to be available for collection in a given year), the more switches will need to be collected to demonstrate that the bounty-free program established under §6C(n) meets the statute’s target capture rate, and can be continued. The issue of the basis for the capture rate’s denominator is also key to measuring the success of the National Vehicle Switch Recovery Program. Discussions now underway among the National Program partners aim to develop a “national” methodology before the end of 2007.

MassDEP intends to use the methodology developed through the national discussions to establish the denominator of the capture rate for 2008 and subsequent years. This rate will be used to measure the program’s success (and the need for manufacturers to implement bounty programs for Massachusetts vehicle recyclers and scrap recycling facilities) in 2008 and later years. MassDEP intends to propose a basis for determining capture rates for switch collection programs in 2008 and subsequent years in a separate package of regulations expected to be published for public comment later in 2007.

At the same time, MassDEP needs to establish the denominator of the capture rate for 2007, the first full year in which ELVS’s collection and recycling program is operating in the state. For calendar year 2007, ELVS estimates that 92,500 mercury switches and 9,000 anti-lock brake assemblies will be available for recycling in Massachusetts, while the Clean Car Campaign estimates that 132,000 switches and 9,000 anti-lock brake assemblies will be available from

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<sup>2</sup> The Clean Car Campaign is a consortium of organizations that are working toward developing vehicles that meet a high standard of environmental performance: American Council for Energy Efficient Economy, Ecology Center, Environmental Defense, Great Lakes United, Michigan Environmental Council, and the Union of Concerned Scientists.

Massachusetts end of life vehicles. MassDEP is proposing to use ELVS's estimate of 92,500 mercury switches available for recovery as the denominator of the 2007 capture rate.

MassDEP believes that the ELVS' lower estimate may be closer to the actual number of switches available for recovery in 2007 due to several factors:

- Recent industry data<sup>3</sup> indicates that the rate at which cars and light trucks are retired (the "scrappage" rate) dropped each year between 2001 and 2005, and the median vehicle age has climbed to 9.5 years, indicating that vehicles are being kept in service longer than they did in previous years, with a corresponding slowdown in the rate at which vehicles are retired from the fleet.
- The Massachusetts vehicle fleet includes more imported vehicles than the national fleet. Since foreign auto manufacturers stopped using mercury switches long before domestic manufacturers, this means that fewer mercury switches may be available for recovery than estimates based on an assessment of the national fleet.
- ELVS's assumption that 8.36% of vehicles are lost or stolen from the national fleet on average each year<sup>4</sup>, and are not returned to the fleet because they are burned, chopped, or illegally exported. Therefore, ELVS assumes that these vehicles are not available for end-of-life switch recovery. ELVS used this assumption to develop an estimate of the number of vehicles likely to be retired annually from the Massachusetts fleet, based on the state's proportion of vehicle registrations in the national fleet.

In establishing a target capture rate of 50% of switches expected to be available for recovery in 2007, the Legislature recognized that the industry would need time to set up and implement the required program and business practices. MassDEP believes the use of ELVS's estimate to measure program success in 2007 is reasonable and practical, but anticipates that the target capture rate for subsequent years will be based on higher estimates of switches likely to be available for recovery.

#### **4. Collection and Recycling of Mercury-Added Products**

Requiring manufacturers to collect and recycle their end-of-life mercury added products will reduce the amount of mercury that will be released into the air when the products are crushed in landfills or burned in municipal waste combustors. Reducing these emissions at the source, before materials are disposed, is critical to reducing mercury in the Massachusetts' environment.

Until now, municipalities have borne most costs associated with collection, and recycling or disposal of solid waste generated by residents. Businesses generally pay for management of the solid waste that they generate. Solid waste from any source can include mercury products. As public awareness has increased about the wide array of products that contain mercury and pressure has increased on municipalities to collect and manage these items in accordance with hazardous waste regulations, the financial burden on already strained municipal budgets has

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<sup>3</sup> 2005 R.L. Polk and Company Vehicle Scrappage Report

<sup>4</sup> National Insurance Crime Bureau, December 2006

greatly increased. By requiring manufacturers to assume the costs for collection and recycling of their end-of-life products, the Mercury Management Act shifts the costs of collection and recycling of mercury added products to their manufacturers. MassDEP anticipates that this requirement will encourage manufacturers of these products to use alternative components that do not contain mercury.

*What Products Must be Collected and Recycled*

A wide variety of mercury-added products will be covered by this regulation. Products include temperature sensing devices and valves in ovens to toys with mercury batteries that cannot be easily removed to industrial equipment with mercury thermostats or switches (e.g., heating system components). The most effective and efficient approach to collecting and recycling these products will also vary widely.

The regulations for collection and recycling plans need to be specific enough so that manufacturers will know with some certainty what they need to do, but will also need to provide flexibility in how products (or their mercury components) are collected and recycled, so manufacturers and their customers can implement this requirement in a cost-effective manner. Therefore, the draft regulations below allow manufacturers to propose a collection and recycling program for their mercury-added products that fits their customers and business arrangements, but also require that plans meet minimum performance standards of convenience and accessibility.

*Measuring the Success of Collection/Recycling Programs*

To evaluate whether the collection and recycling plans are meeting the goals of the Mercury Management Act (and to support the Act's requirement for MassDEP to report on implementation to the Legislature), the Department will need to gather data on the effectiveness of these plans. To accomplish this, MassDEP is proposing that each manufacturer's collection and recycling plan estimate the number of the end-of-life mercury product(s) or components that are expected to be available for recycling each year that the collection/recycling plan is in operation, and be designed to meet specific target capture rates, at a minimum. These target capture rates (see Table 1 below) would be compared with 1) data on actual collections which each manufacturer would submit to MassDEP in an annual certification, and 2) the manufacturer's estimates of the number of end-of-life products expected to be available for recycling each year, to determine whether each manufacturer's plan is working effectively, or whether improvements are needed.



TABLE 1 Target Capture Rates for Recycling Mercury-added Products Generated in Massachusetts	
Calendar Year	Target Capture Rate
2008	30 percent
2009	50 percent
2010	70 percent
2011	90 percent
Each subsequent year	90 percent

Increasing the minimum target annual capture rates over several years would allow manufacturers time to educate the customers and end users of their mercury-added products, and would also promote compliance with ban on disposal of mercury-added products in solid waste (which MassDEP must adopt by May 1, 2008). By funding collection and recycling plans, manufacturers of mercury products will be assuming a significant portion of the costs that product users would encounter in complying with the waste ban.

The disposal bans for other types of solid waste that are already in effect (e.g., glass, metal, plastic, cardboard and other paper products) have typically been implemented during the year following the promulgation of the “waste ban” regulation, as the disposal facilities need to develop and submit compliance plans for MassDEP approval, and then start implementation. Once the new ban on disposal of mercury-added products takes effect and product manufacturers and waste generators, haulers, and facilities have been informed of their requirements, MassDEP will start looking for these products in its compliance inspections of solid waste management facilities. Where significant non-compliance is found, the agency may take enforcement action against the facility, hauler, and/or generator. Full implementation of the ban by waste generators could be expected to be seen starting in 2010.

MassDEP does not currently have data describing the proportion of mercury-added products covered by this requirement that is now being recycled. To establish a baseline for current recycling practices, MassDEP is proposing that manufacturers’ plans describe current recycling status for their mercury products. This data may be used in the future to refine target capture rates.

For products that are not currently being recycled at the end of their useful life (or where recycling is negligible), capturing 30% of the end-of-life products by the end of 2008 would be a significant step toward accomplishing the goals of the Mercury Management Act. Stepped up increases in the target capture rate in subsequent years would allow a manufacturer who wishes to continue to sell a mercury-added product in Massachusetts to improve its recycling program over several years. However, the target capture rate will need to reach a significant portion of the “end-of-life” products by 2010, to ensure that the manufacturers are providing the recycling support for the disposal ban that the statute requires.

The proposal includes a different (and higher) capture rate for new mercury-products that are brought to market in Massachusetts after the deadline for submitting collection and recycling plans for mercury-added products that are currently on the market. The capture rate for new

products is proposed to encourage manufacturers to consider end-of-life management of their products when developing their product plans.

Please note that MassDEP is not proposing that the manufacturers be required to collect and recycle all of their end-of-life mercury-added products. MassDEP recognizes that even the most convenient and accessible recycling programs (with the best possible education for customers about proper management of end-of-life mercury products) may not entice all customers to use them. Therefore, MassDEP is proposing a maximum target capture rate of 90%.

***Mercury-added Lamps:***

There are a number of types of lamps that contain mercury, including linear and compact fluorescent lamps, metal halide lamps, high pressure sodium lamps, mercury short arc and xenon short arc lamps, mercury capillary lamps, and neon lights. While the Mercury Management Act does not require manufacturers of mercury-added lamps to collect and recycle spent lamps, sections 6J(d) and (e) specifically address the need to increase recycling of these lamps.

The lamp manufacturers, either individually or as a group, must develop an education program to inform users of the health and environmental issues with mercury and proper management of spent lamps. Instead of requiring the lamp manufacturers to be financially responsible for collection and recycling programs, it sets annual recycling targets that increase over several years, as described in Table 2.

TABLE 2 Target Capture Rates for Recycling Mercury-added Lamps Generated in Massachusetts	
Calendar Year	Target Capture Rate
2008	30 percent
2009	40 percent
2010	50 percent
2011	70 percent
Each subsequent year	70 percent

If these recycling targets are not met, the law requires the manufacturers, collectively, to pay up to \$1,000,000 into a fund to pay for municipal mercury recycling programs.

The draft regulations include proposed minimum requirements for the public education plans that lamp manufacturers must implement, and also include proposed formulae for determining how much each lamp manufacturer will need to pay into the fund for municipal recycling programs if the target capture rates are not met. The proposed formulae consider the effectiveness of the education plan (i.e., how close the actual capture rate was to the target rate in a particular year) as well as each manufacturer's share of Massachusetts lamp sales in that year. The closer the achieved rate is to the target, the smaller the manufacturer's payment would be for a given year.

Public Education Plan Status: In December 2006, The National Electrical Manufacturers Association (NEMA) established a public education plan in accordance with section 6J(d), on behalf of nine lamp manufacturers. The number of participating manufacturers is expected to grow as other manufacturers agree to participate in this program (NEMA is allowing manufacturers that are not members of the trade association to participate in the public education plan).

Measuring Lamp Recycling/Capture Rates: The statute requires that lamp recycling be measured on the basis of “the total number of mercury-added lamps in the commonwealth available for recycling” [section 6J(d)(2)]. Lamp manufacturers have advised MassDEP that the average “life expectancy” of a mercury lamp is 4-6 years. This estimate and information on the number of lamps sold in Massachusetts each year can be used to establish the capture rate’s denominator. The numerator would be based on the number of spent lamps actually recycled by Massachusetts generators.

Since 2001, NEMA and the Association of Lighting and Mercury Recyclers (ALMR) have worked together to develop and publish a national lamp recycling rate. ALMR members provide the numerator data (i.e., the number of lamps recycled in the year). NEMA members develop the denominator of the rate, based on a rolling average of national sales data for the previous four, five, and six years (to account for average lamp life expectancy).

While this approach would provide an acceptable way to measure lamp recycling in Massachusetts, there does not appear to be data describing lamp sales specifically in Massachusetts at this time. Therefore, NEMA has advised MassDEP that it intends to conduct a survey to determine the number of mercury-added lamps sold in Massachusetts in 2006. This data will be used with national sales data to develop estimates of annual mercury-added lamp sales in Massachusetts in 2002-05, which will form the basis of the 2008 capture rate denominator. NEMA plans to repeat the survey to obtain Massachusetts-specific sales data for 2007 and 2008. If the survey indicates that the state’s portion of national sales in these years is stable, then that proportion will be used to develop the capture rate denominator for subsequent years. If the survey indicates that there is significant fluctuation in the Massachusetts proportion of national sales, NEMA and MassDEP will decide on the need for additional surveys to benchmark state sales in future years.

## **5. Stakeholder involvement in developing draft regulations**

The proposed regulations in this package reflect MassDEP’s discussions with representatives of the vehicle recycling/dismantling industry and ELVS (on the scope and requirements for the vehicle switch recovery program) and with representatives of the lamp manufacturers and lamp recyclers (on the overall content of an effective public education program for mercury-added lamp recycling). Both stakeholder discussions addressed issues of how recycling (or “capture”) rates would be calculated, to determine whether the programs are meeting the goals established by the statute.

## **6.Next Steps**

MassDEP has established a public comment period for these proposed regulations. Visit <http://www.mass.gov/dep/public/publiche.htm> for information on public hearings and how to submit comments. After the close of the public comment period for these draft regulations, MassDEP will review and consider all comments received.

Please note that MassDEP is considering establishing fees that would be paid to the Department by businesses covered by these regulations. These fees would cover the costs of managing and auditing submittals required by 310 CMR 74.00 and 310 CMR 75.00. Any fees would be included in a separate set of amendments to 310 CMR 4.00 (MassDEP's fee regulations), and would be proposed for public comment at a later date.

### **310 CMR 70.00: ENVIRONMENTAL RESULTS PROGRAM CERTIFICATION**

This chapter contains the procedural requirements of the Massachusetts Environmental Results Program (ERP). It complements and references other chapters of the Code of Massachusetts Regulations that establish performance standards for each regulated sector or group. The proposed additions (noted in bold) would make the procedural regulations apply to the industry groups covered by the Mercury Management Act. The entire chapter is presented to provide the reviewer with context.

#### Section

70.01: Purpose and Authority

70.02: Definitions

70.03: Compliance Certification Requirements

70.04: Violations of 310 CMR 70.00

#### 70.01: Purpose and Authority

(1) The purpose of 310 CMR 70.00 is to provide for the protection of public health, safety, welfare and the environment by requiring ERP facilities or units to submit a performance based compliance certification to the Department.

(2) 310 CMR 70.00 is promulgated pursuant to the authority of M.G.L. c. 21, §§ 26 through 53 (the Massachusetts Clean Waters Act), c. 21A, §§ 2, 13 and 16, c. 21C (the Hazardous Waste Management Act), **c.21H, §§ 6A-6N (the Mercury Management Act)**, c. 111, §§ 142A through 142M (the Massachusetts Clean Air Act) and c. 111 § 150A (the Solid Waste Management Act).

#### 70.02: Definitions

The definitions found in 310 CMR 70.02 are for use only in the compliance certification requirements contained in 310 CMR 70.00 and are not intended to replace the definitions of those terms in the underlying standards.

Certification means the certification form as prescribed by the Department pursuant to 310 CMR 70.03(2), which includes the certification statement requirements pursuant to 310 CMR 70.03(2).

Department means the Massachusetts Department of Environmental Protection.

Environmental Results Program (ERP) facility or unit means one of the following:

- (a) a dry cleaner subject to 310 CMR 7.26(10) through (16);
- (b) a photo processor subject to 310 CMR 71.00;
- (c) a printer as defined in 310 CMR 7.26(22);
- (d) a boiler subject to 310 CMR 7.26(30) through (37);
- (e) an engine or combustion turbine subject to 310 CMR 7.26(40) through (44);
- (f) a dental facility subject to 310 CMR 73.00;
- (g) an industrial user subject to 314 CMR 7.05(2)(g);

## **DRAFT Mercury in Products Regulations 3/13/07**

- (h) a new sewer extension of less than 1,000 feet in length subject to 314 CMR 7.05(1)(c);
- (i) a new sewer connection or any increase in flow to an existing sewer connection subject to 314 CMR 7.05(1)(h);
- (j) an industrial wastewater holding tank subject to 314 CMR 18.00;
- (k) a scrap recycling facility, vehicle recycler or vehicle manufacturer subject to 310 CMR 74.00;**
- (l) a manufacturer of a mercury-added product subject to 310 CMR 75.00; or**
- (m) a manufacturer of mercury-added lamps subject to 310 CMR 75.00.**

ERP Sector means all ERP facilities or units of one type.

Operator means the person responsible for the over-all operation of an ERP facility or unit.

Owner means any person who has legal or equitable ownership, alone or with others, of an ERP facility or unit, including, but not limited to, any agent, executor, administrator, trustee, lessee, or guardian of the estate for the holder of legal title.

Person means any individual, partnership, corporation, syndicate, company, firm, association, authority, department, bureau, trust or group including, but not limited to, a city, town, county, the Commonwealth and its agencies, and the federal government.

Responsible Official is one of the following:

- (a) For a corporation: a president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function who has been duly authorized pursuant to a corporate vote, or a representative of the corporation who has been duly authorized pursuant to a corporate vote provided the representative is responsible for the overall operation of the facility or unit; or
- (b) For a partnership: a general partner with the authority to bind the partnership or the proprietor, respectively; or
- (c) For a sole proprietorship: the sole proprietor; or
- (d) For a municipality, state, federal, or other public agency including any legislatively-created authority, board, commission, district, *etc.*: either a principal executive officer or ranking elected official who is empowered to enter into contracts on behalf of the municipality or public agency.

Standards means those requirements listed in the certification form referred to in 310 CMR 70.03(2), including but not limited to 310 CMR 7.00, 310 CMR 30.00, 310 CMR 71.00, 310 CMR 72.00, 310 CMR 73.00, **310 CMR 74.00, 310 CMR 75.00**, 314 CMR 3.00, 314 CMR 5.00, or 314 CMR 12.00, requirements contained in NESHAP's (40 CFR Part 61 Subparts, and Part 63) or NSPS's (40 CFR Part 60 Subparts) that have been delegated to Massachusetts, and the terms and conditions of any permits issued pursuant to any of those regulations.

### 70.03: Compliance Certification Requirements

#### (1) Schedule for Submission of Compliance Certification.

- (a) The owner or operator of each ERP facility or unit shall submit a certification in accordance with 310 CMR 70.03(2) and thereafter shall submit, as applicable, a periodic

compliance certification in accordance with the schedule set forth herein for the specific type of ERP facility or unit.

(b) The owner or operator of each ERP facility or unit shall submit a compliance certification in accordance with 310 CMR 70.03(1) and (2) within 60 days of:

1. the commencement of operation of a new ERP facility or unit; except for boiler(s) subject to 310 CMR 7.26(30) that must submit a certification in accordance with the schedule in 310 CMR 7.26(32);
2. the recommencement of operation of an ERP facility or unit for which no certification was submitted during the year prior to recommencement; except for boiler(s) subject to 310 CMR 7.26(30) that must submit a certification in accordance with the schedule in 310 CMR 7.02(3)(m), or
3. acquiring an ERP facility or unit unless exempted from this requirement pursuant to 314 CMR 7.17(1)(b).

(c) If a periodic compliance certification is required, then the owner or operator of the ERP facility or unit shall submit the compliance certification by the end of each certification period unless a statement of non-applicability is submitted to the Department on a form prescribed by the Department.

(d) Notwithstanding 310 CMR 70.03(1)(a) and (b), a photo processor holding a permit from the Massachusetts Water Resources Authority pursuant to 360 CMR 10.000 is deemed to hold the equivalent of an ERP certification and is not required to file a periodic compliance certification pursuant to 310 CMR 70.00 and 71.00, but such a photo processor is required to pay an annual compliance fee to the Department pursuant to 310 CMR 4.00.

(e) A photo processor which is located in the service area of the Massachusetts Water Resources Authority and which hauls or ships photo processing waste off-site is required to file periodic compliance certifications pursuant to 310 CMR 70.00 and 71.00.

(f) Owners or operators of the following types of ERP facilities or units shall submit a periodic compliance certification to the Department by September 15th of each year except as provided in 310 CMR 70.03(h):

1. dry cleaners subject to 310 CMR 7.26(10) through (16);
2. photo processors subject to 310 CMR 71.00; and
3. printers subject to 310 CMR 7.26(20) through (29).

(g) The owner or operator of the following types of ERP facilities or units shall submit a periodic or one-time compliance certification in accordance with the following schedules:

1. The owner or operator of a facility with boilers subject to 310 CMR 7.26(30) shall submit a one-time certification in accordance with the schedule set forth in 310 CMR 7.26(32).
2. The owner or operator of an industrial wastewater holding tank shall submit to the Department a one-time certification in accordance with the schedule and conditions set forth in 314 CMR 18.11.
3. The owner or operator of a dental facility subject to 310 CMR 73.00 shall submit a certification in accordance with the schedule and conditions referenced in 310 CMR 73.07.
4. An industrial user subject to 314 CMR 7.05(2)(g) and discharging to a non-IPP POTW, as defined in 314 CMR 7.00, shall submit a certification in accordance with the schedule and conditions set forth in 314 CMR 7.17(2).

5. The initial owner or operator of a new sewer extension of 1,000 feet or less in length subject to 314 CMR 7.05(1)(c) shall submit a one-time certification in accordance with the schedule and conditions set forth in 314 CMR 7.17(1).

6. An owner or operator of a new sewer connection subject to 314 CMR 7.05(1)(h) shall submit a one-time certification in accordance with the schedule and conditions set forth in 314 CMR 7.17(1).

7. An owner or operator of an existing sewer connection with an increase in flow subject to 314 CMR 7.05(1)(h), shall submit a one-time certification in accordance with the schedule and conditions set forth in 314 CMR 7.17(1).

8. An owner or operator of an engine or combustion turbine subject to 310 CMR 7.26(40) through (44) shall submit a certification in accordance with the schedule and conditions set forth in 310 CMR 7.26.

**9. Scrap recycling facilities, vehicle recyclers and vehicle manufacturers subject to 310 CMR 74.00 shall submit certification forms in compliance with the applicable schedules and conditions referenced in 310 CMR 74.09.**

**10. Manufacturers of mercury-added products and lamps subject to 310 CMR 75.00 shall submit certification forms in compliance with the applicable schedules and conditions referenced in 310 CMR 75.04 and 310 CMR 75.05.**

(h) The Department may determine a schedule, less frequently than the schedule in 310 CMR 70.03(1)(f), for submission of periodic compliance certifications, based on the following criteria:

1. the size, composition and activities of the ERP sector;
2. the quantity and types of (toxic) materials used and potential wastes, emissions and discharges of the ERP sector;
3. the degree of compliance with established regulatory requirements by the ERP sector;
4. the degree of control over the environmental and public health aspects of activities by the ERP sector; and
5. any other relevant information regarding the environmental consequences of the periodic compliance certifications and return to compliance response rates and results within the ERP sector.

The Department will notify the public and affected businesses by publishing a notice in the Massachusetts Environmental Policy Act Monitor and may also notify an ERP sector through industry trade associations, the Department's website and other appropriate cost-effective methods of changes in the ERP sector's certification schedule.

(2) Certification Statement. The Responsible Official for each ERP facility or unit shall submit a compliance certification. Each compliance certification shall be on a form prescribed by the Department and shall address compliance with standards to which the ERP facility or unit is subject. The certification form may include specialized forms for specific categories of ERP facilities or units, and any owner/operator required to submit a certification pursuant to 310 CMR 70.03 shall submit all applicable forms. The compliance certification shall:

- (a) state whether the ERP facility or unit is in compliance with the applicable standards as listed on the certification form;



(b) identify any violations that occurred and the date of such violations within the certification period prior to the due date of the certification statement including, but not limited to, any notifications required pursuant to MGL c. 21E, § 7 and 310 CMR 40.0300 (releases and threats of release of oil and/or hazardous material), and any reporting of violations required pursuant to 310 CMR 7.02(6) (air pollution control equipment failures), 314 CMR 12.03(8) (emergency bypasses to sewer treatment works), 310 CMR 30.520 (hazardous waste contingency plans) and the terms and conditions of any permits issued by the Department; and

(c) state what the owner/operator will do to return to compliance and the date by which compliance will be achieved; and

(d) include the following statement: "I, [name of responsible official], attest under the pains and penalties of perjury:

1. that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement;
2. that, based on my inquiry of those individuals responsible for obtaining the information, the information contained in this submittal is to the best of my knowledge, true, accurate, and complete;
3. that systems to maintain compliance are in place at the facility or unit and will be maintained even if processes or operating procedures are changed; and
4. that I am fully authorized to make this attestation on behalf of this facility or unit. I am aware that there are significant penalties, including, but not limited to possible fines and imprisonment, for submitting false, inaccurate, or incomplete information."

**70.04: Violations of 310 CMR 70.00**

(1) It shall be a violation of 310 CMR 70.00 for any person to:

- (a) fail to submit a timely certification pursuant to 310 CMR 70.03;
- (b) make any false, inaccurate, incomplete, or misleading statements in any certification required pursuant to 310 CMR 70.03;
- (c) make any false, inaccurate, incomplete or misleading statements in any record, report, plan, file, log, or register which that person is required to keep pursuant to the applicable standards;
- (d) hold themselves out as a responsible official in violation of the requirements contained in 310 CMR 70.03;
- (e) fail to comply with the applicable standards; or
- (f) violate any other provision of 310 CMR 70.00.

(2) The Department reserves the right to exercise the full extent of its legal authority, pursuant to M.G.L. c. 21 §§ 26 through 53 (Massachusetts Clean Waters Act), c. 21A §§ 2, 8, 13 and 16, c.21C (Hazardous Waste Management Act), **c.21H, §§ 6A-6N (the Mercury Management Act), c. 21H, §8**, c. 111 §§ 142A through 142M (Massachusetts Clean Air Act), and c. 111, § 150A (Solid Waste Management Act), in order to obtain full compliance with all requirements applicable to ERP facilities and units, including but not limited to, criminal prosecution, fines, civil and administrative penalties, and orders.

**REGULATORY AUTHORITY**

310 CMR 70.00: M.G.L. c. 21, §§ 26 through 53; c. 21A, §§ 2, 13 and 16; c. 21C, **c.21H, §§ 6A-6N, (the Mercury Management Act)**, and c. 111, §§ 142A through 142M and 150A.

**310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**310 CMR 74.00: REMOVAL AND RECYCLING OF MERCURY-ADDED COMPONENTS IN VEHICLES**

74.01: Purpose and Authority

74.02: Definitions

74.03: Applicability

74.04: Requirements for the Removal of Mercury-added Components Before Crushing

74.05: Prohibition on the Sale of Mercury-added Vehicle Switches

74.06: Measuring Recycling of Mercury-added Vehicle Switches

74.07: Plans for Proper Removal and Recycling of Mercury-added Switches from End-of-Life Vehicles for Auto Manufacturers

74.08: Recordkeeping

74.09: Compliance Certification Requirements

74.01: Purpose and Authority

The purpose of 310 CMR 74.00 is to protect public health, safety, welfare and the environment by implementing the Mercury Management Act (chapter 190 of the Acts of 2006). These regulations prohibit the sale of mercury-added vehicle switches, establish requirements for the removal of mercury-added vehicle switches and other components that contain mercury before a vehicle is crushed or shredded and require a performance-based compliance certification in compliance with 310 CMR 70.00.

310 CMR 74.00 is promulgated pursuant to the authority of M.G.L. c. 21C, §§ 4 and 6, and c. 21H, §§ 6C and 6N.

74.02: Definitions

The definitions found in 310 CMR 74.02 apply and are limited to 310 CMR 74.00.

Automobile dealer or vehicle dealer means any person who, in the ordinary course of his business, is engaged in the business of selling motor vehicles to consumers or other end users pursuant to a franchise agreement and who is required to obtain a class 1 or class 2 license pursuant to the provisions of M.G.L. c. 140, §§ 58 and 59. **[Note to reviewers: this definition is drawn from the definition of “automobile dealer” in M.G.L. c. 93B, §1]**

Automobile manufacturer or vehicle manufacturer means any person, firm, association, partnership, corporation, governmental entity, organization, combination or joint venture which is last in the production or assembly process of a new vehicle that uses mercury-added components, or in the case of an imported vehicle, the importer or domestic distributor of the vehicle; however, if a company from whom an importer or domestic distributor purchases the merchandise has a U.S. presence or assets, that company shall be considered to be the

## **DRAFT Mercury in Products Regulations 3/13/07**

manufacturer and the distributor as defined in MGL c. 93B<sup>5</sup> shall not be considered to be the manufacturer. **[Note to reviewers: this definition is taken from the Act]**

Department means the Massachusetts Department of Environmental Protection. **[Note to reviewers: this definition is taken from the Act]**

End-of-life vehicle means any vehicle, which is sold, given, or otherwise conveyed to a vehicle recycler or scrap recycling facility for the purpose of dismantling, recycling or disposal. **[Note to reviewers: this definition is taken from the Act]**

Mercury-added component means a component that contains mercury, including but not limited to a mercury-added vehicle switch, mercury high intensity discharge (HID) headlamp, or fluorescent lamps. **[Note to reviewers: this definition is taken from the Act]**

Mercury-added vehicle switch means a mercury-added component installed in a motor vehicle that opens or closes an electrical circuit or gas valve, including, but not limited to, those used in light switches and antilock braking systems. **[Note to reviewers: this definition is taken from the Act]**

Motor vehicle (*See* “Vehicle”).

Person means any natural or corporate person, whether public or private, including corporations, societies, associations and partnerships and bodies politic and corporate, public agencies, authorities, departments, offices and political subdivisions of the Commonwealth of Massachusetts. **[Note to reviewers: this definition is taken from M.G.L. c. 21H]**

Scrap recycling facility means a facility, location, device or unit, including, but not limited to, scrap recyclers and vehicle shredders, where machinery and equipment are used for processing and manufacturing scrap metal into prepared grades and whose principal product is scrap iron, scrap steel or nonferrous metallic scrap for sale for remelting purposes. **[Note to reviewers: this definition is taken from the Act]**

Vehicle or motor vehicle means a vehicle propelled by an internal combustion engine or an electric motor, such as an automobile, van, truck, motorized construction equipment, motorized recreational vehicle, motorcycle or forklift. **[Note to reviewers: this definition is taken from the Act]**

Vehicle in commerce means any vehicle offered for sale by a vehicle dealer, or registered in Massachusetts or in the United States to be operated on public roads and highways. **[Note to reviewers: this definition is taken from the Act]**

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<sup>5</sup> **[Note to reviewers: MGL c. 93B, §1 defines a “distributor” as any person who is not a manufacturer or a motor vehicle dealer, and who sells or distributes new and unused motor vehicles to motor vehicle dealers within the commonwealth or to any wholesaler who in turn sells or distributes such vehicles to motor vehicle dealers within the commonwealth; or any branch office or division maintained by any of such persons for directing and supervising their franchisor representatives.]**

**reviewers: this definition is taken from the Act**

Vehicle recycler means any individual or entity engaged in the business of acquiring, dismantling, crushing (including partial crushing) or destroying six (6) or more vehicles in a calendar year for the primary purpose of reselling their parts. For the purposes of this definition, an individual or entity owning or operating a mobile or stationary crushing unit is considered a vehicle recycler. **[Note to reviewers: the first sentence of this definition is taken from the Act]**

74.03: Applicability

(1) 310 CMR 74.00 is applicable to automobile dealers, automobile manufacturers, scrap recycling facilities that accept end-of-life vehicles, and vehicle recyclers.

(2) Compliance with 310 CMR 74.00 does not release an automobile dealer, automobile manufacturer, scrap recycling facility, or vehicle recycler from the need to comply with other applicable state, federal and local requirements.

(3) Certification Form. Each certification required by 310 CMR 70.03 shall be on a form prescribed by the Department and shall address compliance with the standards established by 310 CMR 70.00 and 74.00. The certification form may also address compliance with other applicable standards promulgated by the Department.

74.04: Requirements for the Removal of Mercury-added Components Before Crushing

(1) No person shall crush, cause to be crushed or otherwise arrange for an end-of-life vehicle to be crushed without first having removed any mercury-added components, including but not limited to, mercury-added vehicle switches.

**[Note to Reviewers: The Mercury Management Act requires that all mercury-added components be removed from an end-of-life vehicle before it is crushed. However, MassDEP is aware that it may not be possible or practical to remove some of these components, due to either a) vehicle damage in the area in which the component(s) is located, which prevents its removal, or b) a component is very difficult to reach (e.g. fluorescent lamps that are located behind a dashboard, instrument cluster or navigational system/DVD display). MassDEP is requesting comment on how this requirement can be effectively implemented]**

**One approach would be to add an exemption to this section of the regulations for components that are: a) located in an area of the vehicle that has been damaged so that the component cannot be removed, and b) fluorescent lamps behind dashboards, instrument clusters, and are not readily removable from electronic components. Another approach would be for MassDEP to publish guidance with the final regulations that would list specific components that the Department would consider to be infeasible to remove.]**

(2) A vehicle recycler shall, before delivering or selling vehicle bodies to scrap recycling facilities, certify in writing to the scrap recycling facility, in a form approved by the department,

that all mercury-added vehicle switches have been removed from the vehicle bodies in the shipment. Such certification shall be provided in the form of a document (which may be the bill of lading) that accompanies each shipment of vehicle bodies and contains (at a minimum) the following information:

- (a) Name of the scrap recycling facility that will receive the shipment;
- (b) Description of the shipment: list of vehicles (with makes and model numbers), or the truck's license plate number, driver's name and time of delivery;
- (c) A statement that the person signing the certification is authorized to do so by the vehicle recycling company (e.g., an officer, manager, director or owner of the company);
- (d) Certification date; and
- (e) Signature and printed name of person signing, his or her title, and the company name.

**[Note to Reviewers: Section 6C(s) of the Massachusetts Mercury Act MassDEP requires vehicle recyclers to provide written certifications to scrap recycling facilities with each shipment of vehicle bodies, stating that all mercury-added switches have been removed. MassDEP seeks comment on alternative forms that this certification could take that would comply with the statute, and be feasible for vehicle recyclers and scrap recycling facilities to implement. Please note that the statute would not prevent a recycler from marking vehicle bodies (e.g., with spray paint) to denote that mercury-added switches have been removed. However, this may not be considered to be a certification "in writing".]**

(3) A scrap recycling facility may agree to accept an end-of-life vehicle containing mercury-added components that has not been flattened, crushed or baled provided that the scrap recycling facility removes the mercury added components.

(4) Any person removing a mercury-added component from a vehicle shall manage the component in accordance with the provisions of 310 CMR 30.000, either as a hazardous waste or a universal waste, except for mercury-added components that are not switches (e.g. high intensity discharge (HID) lamps) and that are still in commerce.

#### 74.05: Prohibition on the Sale of Mercury-added Switches in Vehicles

(1) No person shall sell, offer to sell or distribute a vehicle manufactured on or after January 1, 2007, containing mercury-added vehicle switches;

(2) No person shall sell or offer to sell or distribute a mercury-added vehicle switch for new installation in a vehicle;

(3) If a mercury-added switch in a vehicle in commerce requires replacement, it shall be replaced with a non-mercury alternative, if such an alternative is commercially available. If the mercury-added vehicle switch requiring replacement is a component of an anti-lock braking system or an airbag, replacement with a non-mercury alternative shall not be required. The commercial availability of a non-mercury vehicle switch for a particular vehicle may be determined by consulting information published (electronically on internet web pages and on paper) by the Department, vehicle manufacturers and/or their trade associations, and the

automotive industry trade press. **[Note to reviewers: MassDEP solicits comment on information sources that should constitute “due diligence” to determine whether a non-mercury vehicle switch is commercially available.]**

74.06: Plans for Proper Removal, Recovery, and Recycling of Mercury-added Switches from End-of-Life Vehicles

(1) No later than August 1, 2007, every vehicle manufacturer shall, individually or as a group, or through a trade association, develop, file with the department, and commence implementing a plan for the removal, recycling, transportation, storage, and containment of mercury-added switches from end-of-life vehicles in accordance with the regulations at 310 CMR 30.000 as either a hazardous waste or universal waste. Such plans shall, to the extent practicable, use the existing end-of-life vehicle recycling infrastructure, and shall:

- (a) include a method for collecting and transporting switches after they are removed from vehicles;
- (b) identify or establish and use facilities where switches may be received and accepted;
- (c) ensure that the mercury from all recovered switches is recycled in accordance with 310 CMR 30.000; and
- (d) provide information, training, technical assistance to vehicle recyclers, scrap recyclers and all other persons involved in removing mercury-added vehicle switches from motor vehicles;
- (e) include a program which is designed to achieve a mercury-added vehicle switch capture rate of at least 90%, based on the capture rate described in 310 CMR 74.07;
- (f) describe the financing system through which the total cost of removal, collection, record keeping and recovery of mercury-added vehicle switches shall be borne by the vehicle manufacturer. Such financing system shall include, but not be limited to, a payment of \$3 for every mercury-added vehicle switch removed by a vehicle recycler or scrap recycling facility; and
- (g) describe any reasons for not using the existing end-of-life vehicle recycling infrastructure.

(2) The plan described in 310 CMR 74.06(1) shall not be required from:

- (a) a vehicle manufacturer that is participating in a plan being implemented in accordance with the requirements of MGL c. 21H, §6C(n), where such plan is demonstrated to achieve a capture rate that complies with the requirements of 310 CMR 74.07. In the event that a plan fails to achieve the specified capture rate in any year, as determined by the Department, the vehicle manufacturer shall submit to the Department within thirty days of such determination a plan that meets the requirements of 310 CMR 74.06(1); or
- (b) a vehicle manufacturer that never installed mercury-added vehicle switches in its vehicles. To qualify for this exemption, such manufacturer shall submit a one-time certification of non-applicability in compliance with the requirements of 310 CMR 74.09(1)(c) to the Department by August 1, 2007.

(3) Nothing in this section shall prohibit a vehicle manufacturer from substituting a new plan in accordance with, and subject to, the requirements of 310 CMR 74.06(4).

(4) If a vehicle manufacturer's plan under 310 CMR 74.06(1) has been in effect for at least one year, the manufacturer may submit an alternate plan to the Department for approval. The alternate plan shall meet the following criteria:

- (a) The alternate plan has been in effect for at least one year in another state and can be implemented statewide;
- (b) The alternate plan has achieved at least a 90 per cent capture rate in that state; and
- (c) The alternate plan, to the extent practicable, uses the existing end-of-life vehicle recycling infrastructure in Massachusetts.

**[Note to reviewers: MassDEP solicits comment on whether additional performance standards should be established for alternative plans developed pursuant to 310 CMR 74.06(4): what should manufacturers need to demonstrate in order to be allowed to stop making bounty payments for switches removed by recyclers and scrap recycling facilities?].**

(5) When considering whether to approve an alternate plan pursuant to 310 CMR 74.06(4), the Department shall take into consideration the environmental impact in Massachusetts and the economic impact on Massachusetts businesses.

(6) Approval of the alternate plan pursuant to 310 CMR 74.06(4) by the Department shall release the vehicle manufacturer from the obligations of its original plan, pursuant to 310 CMR 74.06(1), starting on the effective date of the alternate plan.

(7) An alternate plan may include an agreement between automobile manufacturers and automobile dealers to remove switches before the vehicle reaches its end-of-life.

#### 74.07: Measuring Recycling of Mercury-added Vehicle Switches

(1) The success of any plan designed to remove, collect, and recover mercury-added switches from end-of-life vehicles that is implemented in compliance with M.G.L. c. 21H, §6C shall be measured by a capture rate that compares the actual number of mercury vehicle switches recovered and transported to authorized recycling facilities in each calendar year to the total number of mercury-added vehicle switches estimated to be available for removal from end-of-life vehicles in Massachusetts in that calendar year.

(2) The vehicle manufacturer shall calculate the capture rate for each calendar year in which a plan established pursuant to 310 CMR 74.06 is implemented, and shall report that rate to the Department in compliance with the requirements of 310 CMR 74.09(1)(b).

(3) Determining Compliance with the 2007 Target Capture Rate for Alternative Plans Submitted Pursuant to c. 21H, Section 6C(n):

- (a) For 2007, the target capture rate shall be 50% of 92,500 mercury-added vehicle switches estimated to be available for collection (or 46,250 switches). **[Note to reviewers: MassDEP requests comment on the most appropriate target capture rate that should be used for 2007.]**



(b) Plans that achieve the target capture rate of 50% by December 31, 2007, as determined by the Department, shall be deemed to be in compliance. Plans that do not achieve this target capture rate by December 31, 2007 shall be deemed to be not in compliance, and their proponents shall comply with the provisions of 310 CMR 74.06 as applicable.

(4) Determining Compliance with the Target Capture Rate for all Plans in 2008 and Subsequent Years.

(a) Plans that achieve a capture rate of 90% by December 31, 2008 and in each subsequent year, as determined by the Department, shall be deemed to be in compliance. Plans that do not achieve this capture rate by December 31, 2008 or by December 31 in any subsequent year shall be deemed to be not in compliance, and their proponents shall comply with the provisions of 310 CMR 74.06 as applicable.

**[Note to reviewers: MassDEP intends to use a “consensus methodology” now being developed under the aegis of the National Voluntary Switch Recovery Program as the basis for the target capture rate denominator, the total number of mercury switches estimated to be available for recovery after 2007. However, as of the date of publication of these regulations for public comment, this methodology has not been completed. Therefore, MassDEP proposes to establish a target capture rate to be used in 2007 with this regulation, and expects to propose the denominator of the target capture rate for 2008 and subsequent years based on the “national methodology” in a package of regulations expected to be published for public comment later in 2007.]**

#### 74.08: Recordkeeping

(1) Parties subject to 310 CMR 74.00 shall keep records on-site that demonstrate compliance with this section, and the supporting information that the facility relied upon to file the certification(s) required by 310 CMR 74.00, and may be required to submit said records upon request of the Department.

(2) Records referenced in 310 CMR 74.00 shall be retained for five years.

#### 74.09: Compliance Certification Requirements and Reports

(1) The following certifications shall be submitted to the Department pursuant to 310 CMR 70.03(1)(g)9:

(a) Scrap recycling facilities and vehicle recyclers subject to 310 CMR 74.00 shall submit to the Department a compliance certification by March 1 of each year. The certification shall be on a form prescribed by the Department, and shall address compliance with the requirements of 310 CMR 74.00. The certification shall contain the following information, at a minimum:

1. Certification that mercury-added components were removed from vehicles during the period covered and will continue to be removed during the coming year;

2. Certification that removed mercury-added components have been managed in accordance with the requirements of 310 CMR 74.00;
  3. The number of mercury switches removed and shipped off-site for recycling;
  4. The number of end-of-life vehicles handled by the facility during the period covered by the certification; and
  5. (for vehicle recyclers) Certification that the vehicle recycler has provided the certification required by 310 CMR 74.04(2) to the scrap recycling facility(ies) to which it shipped vehicle bodies during the period covered by the certification.
- (b) No later than March 1, 2008, and March 1 of each subsequent year, each automobile manufacturer shall certify to the Department, in writing on a form prescribed by the Department, that it is implementing the collection and recycling plan in accordance with 310 CMR 74.06. Such certification shall meet the requirements of 310 CMR 70.03, and shall include but not be limited to the following:
1. the number of mercury-added vehicle switches collected and recycled during the previous calendar year; and
  2. where and how the switches are stored, recycled or otherwise disposed of.
- (c) By August 1, 2007, any vehicle manufacturer that never installed mercury-added vehicle switches shall submit a non-applicability certification to the Department, on a form prescribed by the Department.

**310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**310 CMR 75.00: Collection and Recycling of Mercury-Added Products**

75.01: Purpose and Authority

75.02: Definitions

75.03: Applicability

75.04: Plans for Collecting and Recycling Mercury-Added Products

75.05: Public Education Plans for Mercury-Added Lamps

75.06: Record-keeping and Reporting

75.07: Compliance Certification Requirements

75.01: Purpose and Authority

(1) The purpose of 310 CMR 75.00 is to protect public health, safety, welfare and the environment by implementing the Mercury Management Act (Chapter 190 of the Acts of 2006). These regulations prohibit the sale of mercury-added products in Massachusetts unless the manufacturer of the product creates, files with the Department, and implements a convenient and accessible collection plan for mercury-added products at the end-of-life, including a system for the direct return of the mercury-added product to the manufacturer or a collection and recycling plan, in accordance with MGL c. 21C and 310 CMR 30.000, using new or existing collection systems. This section establishes performance standards and other requirements for collection and recycling plans, and requires a performance-based compliance certification in accordance with 310 CMR 70.00.

(2) 310 CMR 75.00 is promulgated pursuant to the authority of M.G.L. c. 21C, §§ 4 and 6, M.G.L. c. 21H, §§ 6J and 6N.

75.02: Definitions

The definitions found in 310 CMR 75.02 apply and are limited to 310 CMR 75.00.

Distributor means any person who imports, consigns, or offers for sale, sells, barter or otherwise supplies mercury-added products in the commonwealth.

Manufacturer means any person, firm, association, partnership, corporation, governmental entity, organization, combination or joint venture which produces a product containing mercury or an importer or domestic distributor of a product containing mercury produced in a foreign country. In the case of a mercury-added multi-component product where the only mercury is contained in a mercury-added component manufactured by a different manufacturer which is intended to be readily removable and replaceable by the consumer or user, the manufacturer is the manufacturer who produced the mercury-added component. If the product or component is produced in a foreign country, the manufacturer is the importer or domestic distributor. However, if a company from whom an importer purchases the merchandise has a United States presence or assets, that company shall be considered to be the manufacturer. This

definition shall not apply to a “distributor” of motor vehicles as defined in section 1 of chapter 93B<sup>6</sup>. **[Note to reviewers: this definition was taken from the Act.]**

Mercury-added component means a component that contains mercury. **[Note to reviewers: this definition was taken from the Act.]**

Mercury-added product means a product to which the manufacturer intentionally introduces mercury, including, but not limited to, electric lamps, thermostats, automotive devices, electric switches, medical or scientific instruments, electric relays or other electrical devices, but not including products made with coal ash or other products that are incorporated into equipment used to manufacture semiconductor devices, elemental mercury in pre-capsulated form that is sold, distributed or provided to a dental practitioner for use in compliance with the department’s regulations concerning amalgam wastewater and recycling for dental facilities, or mercury-added formulated products. This term includes mercury-added components that are incorporated into larger products. **[Note to reviewers: this definition was taken from the Act.]**

Mercury-added lamp means an electric lamp to which the manufacturer intentionally introduces mercury for the operation of the lamp, including, but not limited to, fluorescents, compact fluorescents, black lights, high intensity discharge lamps, ultraviolet lamps and neon lamps. **[Note to reviewers: this definition was taken from the Act.]**

Mercury-added formulated product means a chemical product to which mercury has been added, intentionally or unintentionally, including, but not limited to, laboratory chemicals, cleaning products, cosmetics, pharmaceuticals and coating materials that are sold as consistent mixtures of chemicals. **[Note to reviewers: this definition was taken from the Act.]**

Person means any natural or corporate person, whether public or private, including corporations, societies, associations and partnerships and bodies politic and corporate, public agencies, authorities, departments, offices and political subdivisions of the Commonwealth. **[Note to reviewers: this definition was taken from M.G.L. c. 21H]**

### 75.03 Applicability

- (1) 310 CMR 75.00 applies to any person who manufactures, sells, offers for sale or distributes mercury-added products in Massachusetts on or after May 1, 2007.
- (2) The following products are exempt from the requirements of 310 CMR 75.00:
  - (a) motor vehicles and motor vehicle components,
  - (b) refurbished medical equipment,
  - (c) mercury-added button cell batteries,

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<sup>6</sup> **[Note to reviewers: MGL c. 93B, §1 defines a “distributor” as any person who is not a manufacturer or a motor vehicle dealer, and who sells or distributes new and unused motor vehicles to motor vehicle dealers within the commonwealth or to any wholesaler who in turn sells or distributes such vehicles to motor vehicle dealers within the commonwealth; or any branch office or division maintained by any of such persons for directing and supervising their franchisor representatives.]**

- (d) products where the only mercury contained in the product comes from a removable mercury-added button cell battery,
- (e) products where the only mercury contained in the product is contained in one or more mercury-added lamps, except as provided in 310 CMR 75.05,
- (f) mercury-added formulated products intended to be totally consumed in use, such as reagents, cosmetics, pharmaceuticals and other laboratory chemicals.
- (g) Products made with coal ash,
- (h) Products that are incorporated into equipment used to manufacture semi-conductor devices, or
- (i) elemental mercury in pre-capsulated form that is sold, distributed or provided to a dental practitioner for use in compliance with the department's regulations concerning amalgam wastewater and recycling for dental facilities.

**[Note to reviewers: the exemptions listed above are taken from the definition of "mercury-added product" in the Act and from Section 6J(g)-(i).**

(3) After May 1, 2007, once a mercury-added product is no longer sold, offered for sale, or distributed in Massachusetts, the product's manufacturer will no longer be subject to the requirements of 310 CMR 75.00.

**[Note to reviewers: MassDEP seeks comment on whether continued implementation of collection/recycling plans should be required of manufacturers once they stop selling a mercury-added product in Massachusetts. Allowing manufacturers to stop collecting and recycling their end-of-life mercury-added products when they are removed from the Massachusetts market may provide manufacturers with an incentive to replace these products with non-mercury alternatives. However, once the manufacturers stop collecting and recycling these products, businesses and municipalities will need to shoulder the collection and recycling costs for mercury-added products that are still in consumers' hands, due to the disposal ban established in Section 6I.**

**If MassDEP decides to require manufacturers to continue to implement a collection/recycling plan once their product has been removed from the market, a second question arises about whether a collection/recycling plan should be allowed to end, and if so, what criteria should be used to make this decision. MassDEP solicits comment on this issue.]**

(4) Compliance with 310 CMR 75.00 does not release manufacturers, distributors, wholesalers, or retailers from the need to comply with other applicable state, federal and local requirements.

#### 75.04: Plans for Collecting and Recycling Mercury-Added Products

(1) No later than May 1, 2007 or thirty days following the date on which this section is promulgated (whichever is later), every manufacturer of a mercury-added product subject to 310 CMR 75.00 whose products are sold, offered for sale, or distributed in Massachusetts shall develop and file with the Department a plan for collection, storage (including containment of mercury-added products and/or components), transportation, and recycling of end-of-life mercury-added products in accordance with 310 CMR 30.000. Such plans shall provide methods of collection and recycling that are convenient and accessible to product purchasers and users.

(2) No person shall sell, offer for sale or distribute a mercury-added product to which 310 CMR 75.00 applies after May 1, 2007 or thirty days after the date on which this section is promulgated

(whichever is later), unless its manufacturer files with the Department a plan as specified in 310 CMR 75.04 or 310 CMR 75.05 for collecting its mercury-added product(s) at the end of the product's useful life and recycling its mercury content, and commences implementation of such plan.

(3) Every manufacturer of mercury-added products sold or distributed in Massachusetts shall be financially responsible for developing and implementing a plan that meets the requirements of 310 CMR 75.04.

(4) Where a mercury-added component is part of another product, the collection system shall provide for collection of the mercury-added component or collection of both the mercury-added component and the product containing it.

(5) Plans for collection and recycling of mercury-added products may be submitted by a trade association or industry group on behalf of a specific group of manufacturers.

(6) Plans for collection and recycling of mercury-added products shall include, at a minimum, the following information:

(a) Applicant's name, telephone number, North American Industry Classification System, and web address. If a trade association is submitting a plan on behalf of a group of manufacturers, include trade association name, telephone number and web address, and list of participating manufacturers' names with respective contact information.

(b) Applicant's address, including the mailing address.

(c) The address, telephone number, and e-mail address of a contact person for the applicant.

(d) A description of how to advise purchasers of the mercury-added product(s) about the collection and recycling program, including the purpose of the collection system program, and how they may participate. The description must identify the parties who will be responsible for implementing the purchaser education plan, and the date on which it will commence implementation. Such description shall also include, but shall not be limited to, notification to all persons who sell, distribute, or offer the mercury-added product(s) for sale in Massachusetts that the product(s) cannot be sold unless they are covered by the manufacturer's collection plan. Such notification shall be repeated on a specified basis that shall be no less frequent than annually.

(e) Location of all mercury-added components in each product covered by the Plan, and directions for removing them to aid collection (if appropriate).

(f) If applicable, documentation regarding the intention of the applicant to phase-out use of mercury in the product or the sale of the mercury-added product in Massachusetts, and the schedule for the phase-out.

(g) Identification of currently available collection and recycling methods for the mercury-added product(s) and information about the extent to which the mercury-added product(s) is currently collected and recycled at the end of its useful life.

(h) Description of the system that will be employed for collection, storage, transportation, and recycling of the mercury-added product(s), including provision for managing collected mercury-added products in accordance with 310 CMR 30.000. Such system shall be convenient and accessible for the product user. It may employ:

1. the direct return of an end-of-life product or component to the manufacturer, or its agents;
2. a drop off program where a receiving facility is no farther than a 30 minute driving distance for any Massachusetts generator of the end-of-life mercury-added product; or
3. another system that is as convenient to the product user as the original product purchase.

**Note to reviewers: MassDEP solicits comment about how to more specifically define the phrase “convenient and accessible”.**

(i) Schedule for implementing the plan, including the date on which collection will commence. Collection shall commence no later than 45 days after submittal of the plan to the Department.

(j) Documentation of the commitment of all necessary parties to perform as intended in the planned collection system.

(k) Documentation demonstrating how the manufacturer will finance the proposed collection and recycling system. The cost of the collection system shall not be borne by state or local government. Financing may include the recovery of a product that has an economic value to processors, such as silver oxide batteries.

(l) The targeted capture rate for the collection and recycling of mercury-added product(s), or components covered in the Plan, a description of the performance measures to be used to demonstrate that the collection system is meeting the target capture rate and the recordkeeping protocol that will be implemented to assure compliance with the Plan.

1. Such target capture rate shall be expressed as a percentage, where the numerator is the number of mercury-added product(s) expected to be collected in each year of the Plan’s operation, and the denominator is an estimate of the number of products (or mercury-containing components) expected to be available for collection and recycling each year. The estimated number of products expected to be available for collection in any year shall be based on a rolling average life expectancy of the product (assuming normal use by the user) and sales data, and other indications of the number of products that are likely to be retired (or reach the end of their useful life) in each year.
2. For plans submitted by an individual manufacturer, the target capture rate shall be based on that manufacturer’s sales data and average product life expectancy. For plans submitted by a trade association or industry group on behalf of a group of manufacturers, the target capture rate shall be based on the group’s sales data and average product life expectancy.
3. The target capture rate shall not be less than the rates established in Table 1:

TABLE 1 Target Capture Rates for Recycling Mercury-added Products Generated in Massachusetts	
Calendar Year	Target Capture Rate
2008	30 percent
2009	40 percent
2010	50 percent
2011	70 percent

Each subsequent year	70 percent
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4. The target capture rate for mercury-added products first sold, offered for sale or distributed after May 1, 2007 shall be 75%, to be achieved by the end of the first full year of the product's sale or distribution in Massachusetts.
  - (m) Description of additional or alternative actions that will be implemented to improve the collection system and its operation in the event that the program target capture rate is not met, and
  - (n) Other special conditions or information related to the affected mercury-added product(s), such as special handling that will be required by product users to participate in the collection/recycling system.
- (7) Submittal of Plans to the Department.
- (a) Plans shall be filed with the Department in accordance with the schedule established in 310 CMR 75.04(1).
  - (b) Such plans shall be accompanied by the certification required by 310 CMR 75.04(8) and shall comply with the requirements of 310 CMR 70.03.
- (8) Recordkeeping Requirements
- (a) Manufacturers subject to 310 CMR 75.00 shall keep records on-site that demonstrate compliance with this section, and the supporting information that the manufacturer relied upon to file the plan required by 310 CMR 75.04, and may be required to submit said records upon request of the Department.
  - (b) Records shall be maintained for at least five years.
- (9) Annual Compliance Certification
- (a) Manufacturers subject to 310 CMR 75.00 shall submit a compliance certification annually to the Department. The compliance certification shall address compliance with the requirements of this chapter on a form prescribed by the Department that shall include at least the following information:
    1. The type and number of each mercury-added product collected and recycled;
    2. The estimated number of each mercury-added product expected to be available for collection in the year covered by the certification, which shall be based on a rolling average life expectancy of the product (assuming normal use by the user);
    3. The number of mercury-added products the manufacturer sold, offered for sale or distribution in Massachusetts in the year covered by the certification;
    4. Calculation of capture rate;
    5. Certification that documentation and records are being maintained as required by 310 CMR 75.04(7);
    6. Certification that the plan will continue to be implemented (identifying any changes needed to address operating issues or to ensure that the target capture rate is met) during the coming year.
  - (b) Compliance certifications shall be submitted to the Department by March 31 of each year. The first compliance certification shall cover the period from the commencement of plan implementation through the first full year of implementation.



**75.05: Collection and Recycling of Mercury-added Lamps**

- (1) Manufacturers of mercury-added lamps shall satisfy the requirements of 310 CMR 75.04(1) if, individually or as a group, they develop an education plan in accordance with 310 CMR 75.05(2).
- (2) Education plans shall, at a minimum, include the following information:
  - (a) Economic and environmental benefits of mercury-added lamps;
  - (b) The ways in which mercury can harm the environment and human health;
  - (c) Proper disposal and recycling methods for mercury-added lamps;
  - (d) Where and how to return, recycle, or properly dispose of mercury added lamps; and
  - (e) The meaning of the chemical symbol “Hg” and other symbols and non-English terms used to present the information described in this section to consumers and municipalities.
- (3) The information required in 310 CMR 75.05(2)(d) shall be provided to consumers through the use of a toll-free telephone number, internet web site(s), information labeled on the product, information included in the product’s packaging, or information otherwise accompanying the sale of mercury-added lamps.
- (4) Each manufacturer of mercury-added lamps offered for sale or distribution in Massachusetts shall submit an annual compliance certification to the Department on a form prescribed by the Department that contains at a minimum the following information:
  - (a) Certification that the manufacturer is participating and will continue to participate in the implementation of a public education plan in accordance with the requirements of 310 CMR 75.05;
  - (b) The total number of mercury-added lamps sold by that manufacturer in Massachusetts in the previous calendar year. If an annual certification is filed by a trade association or other group on behalf of more than one manufacturer, it shall list the annual Massachusetts sales figures for each manufacturer.
  - (c) The number of mercury-added lamps from Massachusetts recycled in the previous calendar year;
  - (d) The actual capture rate for mercury-added lamp recycling in Massachusetts for the previous calendar year; and
  - (e) The certification required by 310 CMR 70.03.
- (5) Manufacturers may request that the Department keep the information described in 310 CMR 75.05(4) confidential, in accordance with the requirements and procedures established in 310 CMR 3.00.
- (6) Determining Success of Education Plans
  - (a) If recycling of mercury-added lamps generated in Massachusetts meets or exceeds the capture rates established in Table 2, then lamp manufacturers shall continue to implement the education plan(s) described in 310 CMR 75.05(2).

TABLE 2 Target Capture Rates for Recycling Mercury-added Lamps Generated in Massachusetts	
Calendar Year	Target Capture Rate
2008	30 percent
2009	40 percent
2010	50 percent
2011	70 percent
Each subsequent year	70 percent

(b) For any year in which recycling of mercury-added lamps generated in Massachusetts falls short of the capture rates established in Table 2, then manufacturers shall make a payment into an expendable trust fund established in accordance with MGL c. 6A, §6. Such fund shall be maintained for the purpose of providing grants to municipalities and regional authorities to facilitate the achievement of the target capture rates established in Table 2.

(c) Payments to the expendable trust fund shall be made in accordance with the following formula (“% MMS” is the manufacturers’ percentage of the total sale of mercury-added lamps in Massachusetts during the calendar year):

1. If the achieved capture rate is within than two percentage points below the target capture rate in any calendar year, each manufacturer’s payment shall be calculated as follows:  $0.25 \times \%MMS \times \$1,000,000$ .
2. If the achieved capture rate is more than two percentage points but less than or equal to four percentage points below the target capture rate in any calendar year, each manufacturer’s payment shall be calculated as follows:  
 $0.5 \times \%MMS \times \$1,000,000$ .
3. If the achieved capture rate is more than four percentage points but less than or equal to six percentage points below the target capture rate in any calendar year, each manufacturer’s payment shall be calculated as follows:  
 $0.75 \times \%MMS \times \$1,000,000$ .
4. If the achieved capture rate is more than six percentage points below the target capture rate in any calendar year, each manufacturer’s payment shall be calculated as follows:  $\%MMS \times \$1,000,000$ .

(d) Aggregate funding commitments by manufacturers shall not exceed \$1,000,000 for any year of non-compliance with the target capture rates established in 310 CMR 75.05(6).

(e) Manufacturers’ individual contributions shall not exceed their respective market share of lamps sold in Massachusetts during the particular calendar year in which the target capture rate was not achieved.

(f) Payments to the expendable trust fund shall be made within 30 days of receipt of a notice from the Department that the actual recycling rate fell short of the target capture rate established in 310 CMR 75.05(6).

(g) The Department will disburse funds from the expendable trust fund to municipalities and regional authorities through a competitive grant application process.